

PATENT ABSTRACTS OF JAPAN

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(71)Applicant : SEIKO INSTR INC

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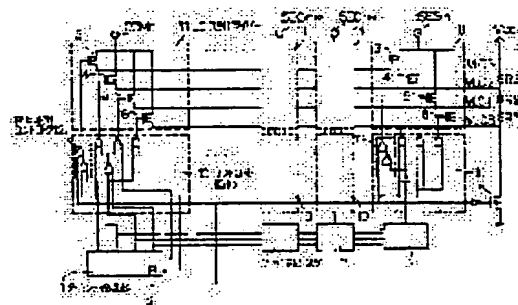
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(54) SEMICONDUCTOR DEVICE

(57)Abstract:

PURPOSE: To eliminate a flicker and a thin display on an attached liquid crystal panel when an LCD driver 11 is stopped and to make the power consumption low.

CONSTITUTION: When the LCD driver 11 is stopped, a timing generator 1 is stopped, currents which flow to LCD division resistors R1, R2, and R3 are cut, and the potentials at a common terminal COMn and segment terminals SEGn, SEGn+1, and SEGn+2 are raised to VCC to hold the common terminals and segment terminals at the same potential, thereby eliminating the flicker and thin display on the attached liquid crystal panel. Consequently, the power consumption can be reduced.



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the LCD driver; and

switching elements to be connected in series to resistances with no ends in the plurality of resistances,

wherein the switching element is switched OFF at a stoppage of the LCD driver, and of all the plurality of transistors, those connected to one end of the resistance on the high voltage side of all the resistances is set ON by a controller for use in the stoppage of the transistors, whereby the segment terminal and the common terminal are set to the same potential.

...

[0008]

[EFFECTS OF THE PRESENT INVENTION]

As described, according to the semiconductor device of the present invention, by setting the common terminal and the segment terminal to the VCC level at a stoppage of the LCD driver, a potential difference between the common terminal and the segment terminal can be eliminated, and thus the current consumption can be reduced, and a flickering noise or light lightening of the attached liquid crystal panel can be eliminated.

Japanese Publication of Unexamined Patent Application
No. 232447/1993 (Tokukaihei 5-232447)

A. Relevance of the Above-Identified Document

This document has relevance to claims 63 and 64 of the present application.

B. Translation of the Relevant Passages of the Document

[CLAIM]

[CLAIM 1]

A semiconductor device, comprising:

a control circuit to be connected to a timing generator;

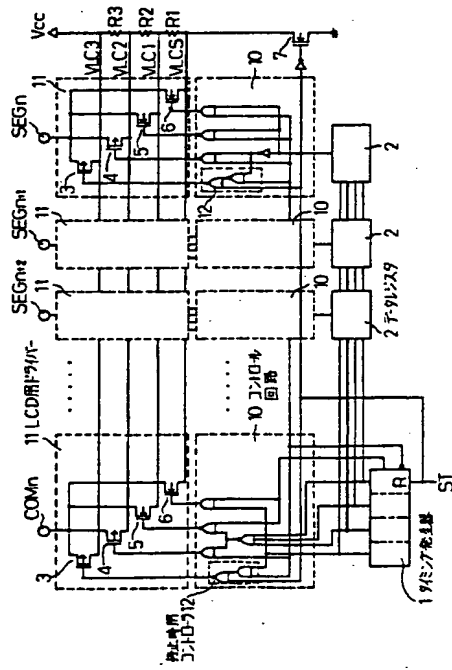
an LCD driver to be connected to the control circuit;

a segment terminal and a common terminal connected to the LCD driver;

a data register for supplying an output signal to the control circuit in response to an input signal received from the timing generator;

a plurality of resistances connected in series, said plurality of resistances being connected in series to a plurality of transistors which constitute

【図1】



【図2】

